

=====

Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866)
217-9197 (toll free).

Reviewer: markspencer

Timestamp: [year=2011; month=1; day=13; hr=8; min=8; sec=49; ms=163;]

=====

Application No: 10559596 Version No: 3.0

Input Set:

Output Set:

Started: 2011-01-10 18:11:30.520
Finished: 2011-01-10 18:11:31.674
Elapsed: 0 hr(s) 0 min(s) 1 sec(s) 154 ms
Total Warnings: 6
Total Errors: 0
No. of SeqIDs Defined: 9
Actual SeqID Count: 9

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (1)
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 402	Undefined organism found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)

SEQUENCE LISTING

<110> Spies, Gregory A.
Misher, Lynda

<120> DNA VECTORS

<130> 210121.579USPC

<140> 10559596

<141> 2011-01-10

<150> PCT/US2004/018529

<151> 2004-06-09

<150> US 60/477,232

<151> 2003-06-09

<160> 9

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 2665

<212> DNA

<213> Artificial Sequence

<220>

<223> pUC9 plasmid

<400> 1

```

ggcgcccaata cgcaaaccgc ctctccccgc gcgttggcgc attcattaat gcagctggca 60
cgacaggttt cccgactgga aagcgggcag tgagcgcaac gcaattaatg tgagttagct 120
cactcattag gcaccccagg ctttacactt tatgcttccg gctcgtatgt tgtgtggaat 180
tgtgagcgga taacaatttc acacaggaaa cagctatgac catgattacg ccaagcttgg 240
ctgcaggtcg acggatcccc gggaattcac tggccgtcgt tttacaacgt cgtgactggg 300
aaaaccctgg cgttacccaa cttaatcgcc ttgcagcaca tccccctttc gccagctggc 360
gtaatagcga agaggcccgcc accgatcgcc cttcccaaca gttgcgcagc ctgaatggcg 420
aatggcgccct gatgcgggat tttctcctta cgcactctgtg cggatatttc caccgcata 480
ggtgcactct cagtacaatc tgcctctgat ccgcatagtt aagccagccc cgacacccgc 540
caacacccgc tgacgcgccc tgacgggctt gtctgtctcc ggcatccgct tacagacaag 600
ctgtgaccgt ctccgggagc tgcattgtgc agagggtttt accgtcatca ccgaaacgcg 660
cgagacgaaa gggcctcgtg atacgcctat ttttataggt taatgtcatg ataataatgg 720
tttcttagac gtcagggtggc acttttcggg gaaatgtgcg cggaaccctt atttgtttat 780
ttttctaaat acattcaa atgtatccgc tcatgagaca ataaccctga taaatgcttc 840
aataatattg aaaaaggaag agtatgagta ttcaacattt ccgtgtcgcc cttattccct 900
tttttgccgc attttgctt cctgtttttg ctcaaccaga aacgctggtg aaagtaaaag 960
atgctgaaga tcagttgggt gcacgagtgg gttacatcga actggatctc aacagcggta 1020
agatccttga gagttttcgc cccgaagaac gttttccaat gatgagcact tttaaagttc 1080
tgctatgtgg cgcggtatta tcccgtattg acgccgggca agagcaactc ggtcgccgca 1140
tacactattc tcagaatgac ttggttgagt actcaccagt cacagaaaag catcttacgg 1200
atggcatgac agtaagagaa ttatgcagtg ctgccataac catgagtgat aacactgcgg 1260
ccaacttact tctgacaacg atcggaggac cgaaggagct aaccgctttt ttgcacaaca 1320
tgggggatca tgtaactcgc cttgatcggt gggaaccgga gctgaatgaa gccataccaa 1380
acgacgagcg tgacaccacg atgcctgtag caatggcaac aacgttgccg aaactattaa 1440

```

ctggcgaaact	acttactcta	gcttcccggc	aacaattaat	agactggatg	gaggcggata	1500
aagttgcagg	accacttctg	cgctcggccc	ttccggctgg	ctggtttatt	gctgataaat	1560
ctggagccgg	tgagcgtggg	tctcgcggta	tcattgcagc	actggggcca	gatggttaagc	1620
cctcccgtat	cgtagttaatc	tacacgacgg	ggagtcaggc	aactatggat	gaacgaaata	1680
gacagatcgc	tgagataggt	gcctcactga	ttaagcattg	gtaactgtca	gaccaagttt	1740
actcatatat	acttttagatt	gattttaaacc	ttcatttttta	attttaaagg	atctaggtga	1800
agatcctttt	tgataatctc	atgacccaaa	tcccttaacg	tgagtttttcg	ttccactgag	1860
cgtcagaccc	cgtagaaaag	atcaaaggat	cttcttgaga	tccttttttt	ctgcgcgtaa	1920
tctgctgctt	gcaaacaaaa	aaaccaccgc	taccagcggg	ggtttggttg	ccggatcaag	1980
agctaccaac	tctttttccg	aaggtaactg	gcttcagcag	agcgcagata	ccaaatactg	2040
tccttctagt	gtagccgtag	ttaggccacc	acttcaagaa	ctctgtagca	ccgcctacat	2100
acctcgctct	gctaatcctg	ttaccagtgg	ctgctgccag	tggcgataag	tcgtgtctta	2160
ccgggttgga	ctcaagacga	tagttaccgg	ataaggcgca	gcggtcgggc	tgaacggggg	2220
gttcgtgcac	acagcccagc	ttggagcgaa	cgacctacac	cgaactgaga	tacctacagc	2280
gtgagctatg	agaaagcgcc	acgcttcccg	aagggagaaa	ggcggacagg	tatccggtaa	2340
gcggcagggt	cggaacagga	gagcgcacga	gggagcttcc	agggggaaac	gcctggatatc	2400
tttatagtcc	tgtcgggttt	cgccacctct	gacttgagcg	tcgatttttg	tgatgctcgt	2460
cagggggggc	gagcctatgg	aaaaacgcca	gcaacgcggc	ctttttacgg	ttcctggcct	2520
tttgctggcc	ttttgctcac	atgttctttc	ctgcgttatac	ccctgattct	gtggataacc	2580
gtattaccgc	ctttgagtga	gctgataccg	ctcgccgcag	ccgaacgacc	gagcgcagcg	2640
agtcagtggg	cgaggaagcg	gaaga				2665

<210> 2

<211> 5736

<212> DNA

<213> Artificial Sequence

<220>

<223> pRSVneo plasmid

<400> 2

cttgagggtg	cacaccaatg	tggtgaatgg	tcaaattggcg	tttattgtat	cgagctaggc	60
acttaaatac	aattatctct	gcaatgcgga	attcagtggg	tcgtccaate	catgtcagac	120
ctgtctgttg	ccttcctaata	aaggcacgat	cgtaccacct	tacttccacc	aatcggcatg	180
cacgggtgctt	tttctctcct	tgtaaggcat	gttgctaact	catcgttacc	atgttgcaag	240
actacaagtg	tattgcataa	gactacattt	ccccctccct	atgcaaaaagc	gaaactacta	300
tatcctgagg	ggactcctaa	ccgcgtacaa	ccgaagcccc	gcttttcgcc	taaacacacc	360
ctagtcccct	cagatacgcg	tatatctggc	ccgtacatcg	cgaagcagcg	caaaacgcct	420
aaccctaagc	agattcttca	tgcaattgtc	ggtaagcct	tgcttggttg	tagcttaaata	480
tttgctcgcg	cactactcag	cgacctccaa	cacacaagca	gggagcagat	actggcttaa	540
ctatgcggca	tcagagcaga	ttgtactgag	agtgcaccat	atgcggtgtg	aaataccgca	600
cagatgcgta	aggagaaaat	accgcacatc	gcgctcttcc	gcttcctcgc	tactgactc	660
gctgcgctcg	gtcggttcggc	tgccggcgagc	ggtatcagct	cactcaaagg	cggtaatatc	720
gttatccaca	gaatcagggg	ataacgcagg	aaagaacatg	tgagcaaaaag	gccagcaaaa	780
ggccagggaac	cgtaaaaagg	ccgcgttgct	ggcgtttttc	cataggctcc	gccccctga	840
cgagcatcac	aaaaatcgac	gctcaagtca	gaggtggcga	aacccgacag	gactataaag	900
ataccaggcg	tttccccctg	gaagctccct	cgtgcgctct	cctgttccga	ccctgccgct	960
taccggatac	ctgtccgcct	ttctcccttc	gggaagcgtg	gcgctttctc	atagctcacg	1020
ctgtaggtat	ctcagttcgg	tgtaggctcg	tcgctccaag	ctgggctgtg	tgcacgaacc	1080
ccccgttcag	cccgaccgct	gcgccttatac	cggtaactat	cgtcttgagt	ccaaccgggt	1140
aagacacgac	ttatcgccac	tggcagcagc	cactggtaac	aggattagca	gagcgaggta	1200
tgtaggcggg	gctacagagt	tcttgaagtg	gtggcctaac	tacggctaca	ctagaaggac	1260
agtatttggg	atctgcgctc	tgctgaagcc	agttaccttc	ggaaaaagag	ttggtagctc	1320
ttgatccggc	aaacaaacca	ccgctggtag	cgggtggtttt	tttgtttgca	agcagcagat	1380
tacgcgcaga	aaaaaaggat	ctcaagaaga	tcctttgatc	ttttctacgg	ggctctgacg	1440
tcagtggaac	gaaaactcac	gttaagggat	tttggtcatg	agattatcaa	aaaggatctt	1500
cacctagatc	cttttaaatt	aaaaatgaag	ttttaaatca	atctaaagta	tatatgagta	1560

aacttgggtct	gacagttacc	aatgcttaat	cagtgaggca	cctatctcag	cgatctgtct	1620
atttcgttca	tccatagttg	cctgactccc	cgctgtgtag	ataactacga	tacgggaggg	1680
cttaccatct	ggccccagtg	ctgcaatgat	accgcgagac	ccacgctcac	cggtctccaga	1740
tttatcagca	ataaaccagc	cagccggaag	ggccgagcgc	agaagtggtc	ctgcaacttt	1800
atccgcctcc	atccagctcta	ttaattgttg	ccgggaagct	agagtaagta	gttcgccagt	1860
taatagtttg	cgcaacgttg	ttgccattgc	tgcaggcatc	gtggtgtcac	gctcgtcgtt	1920
tggtatggct	tcattcagct	ccggttccca	acgatcaagg	cgagttacat	gatcccccat	1980
gttgtgcaaa	aaagcggtta	gctccttcgg	tcctccgatc	gttgtcagaa	gtaagttggc	2040
cgcagtgtaa	tcactcatgg	ttatggcagc	actgcataat	tctcttactg	tcatgccatc	2100
cgtaagatgc	ttttctgtga	ctggtgagta	ctcaaccaag	tcattctgag	aatagtgtat	2160
gcggcgaccg	agttgctctt	gcccggcgctc	aacacgggat	aataccgcgc	cacatagcag	2220
aactttaaaa	gtgctcatca	ttggaaaacg	ttcttcgggg	cgaaaactct	caaggatctt	2280
accgctgttg	agatccagtt	cgatgtaacc	cactcgtgca	cccaactgat	cttcagcatc	2340
ttttactttc	accagcgttt	ctgggtgagc	aaaaacagga	aggcaaatg	ccgcaaaaaa	2400
gggaataaag	gcgacacgga	aatgttgaat	actcatactc	ttcctttttc	aatattattg	2460
aagcatttat	cagggttatt	gtctcatgag	cggatacata	tttgaatgta	tttagaaaaa	2520
taaacaaata	ggggttcgcg	gcacatttcc	ccgaaaagtg	ccacctgacg	tctaagaaac	2580
cattattatc	atgacattaa	cctataaaaa	taggcgtatc	acgaggccct	ttcgtcttca	2640
agaattcctt	tgcctaattt	aaatgaggac	ttaacctgtg	gaaatatatt	gatgtgggaa	2700
gctgttactg	ttaaaactga	ggttattggg	gtaactgcta	tgtaaactt	gcattcaggg	2760
acacaaaaaa	ctcatgaaaa	tgggtgctgga	aaaccatttc	aagggtcaaa	ttttcatttt	2820
tttgctgttg	gtggggaacc	tttgagctg	cagggtgtgt	tagcaacta	caggaccaa	2880
tatctgctc	aaactgtaac	cccaaaaaat	gctacagttg	acagtcagca	gatgaacact	2940
gaccacaagg	ctgttttgga	taaggataat	gcttatccag	tggagtgtg	ggttcctgat	3000
ccaagtaaaa	atgaaaacac	tagatatatt	ggaacctaca	caggtgggga	aaatgtgcct	3060
cctgttttgc	acattactaa	cacagcaacc	acagtgcctc	ttgatgagca	gggtgttggg	3120
cccttggtgca	aagctgacag	cttgtagt	tctgctgttg	acatttgtgg	gctgtttacc	3180
aacacttctg	gaacacagca	gtggaaggga	cttcccagat	attttaaaat	tacccttaga	3240
aagcggctctg	tgaaaaaccc	ctacccaatt	tcctttttgt	taagtacct	aattaacagg	3300
aggacacaga	gggtggatgg	gcagcctatg	attggaatgt	cctctcaagt	agaggaggtt	3360
agggtttatg	aggacacaga	ggagcttcct	ggggatccag	acatgataag	atacattgat	3420
gagtttggtg	aaaccacaac	tagaatgcag	tgaaaaaaat	gctttatttg	tgaaatttgt	3480
gatgctattg	ctttatttgt	aaccattata	agctgcaata	aacaagttaa	caacaacaat	3540
tgcattcatt	ttatgtttca	ggttcagggg	gaggtgtggg	aggtttttta	aagcaagtaa	3600
aacctctaca	aatgtggtat	ggctgattat	gatctctagt	caaggcacta	tacatcaa	3660
attccttatt	aaccctttta	caaattaaaa	agctaaaggt	acacaatttt	tgagcatagt	3720
tattaatagc	agacactcta	tgcctgtgtg	gagtaagaaa	aaacagtatg	ttatgattat	3780
aactgttatg	cctacttata	aaggttacag	aatatttttc	cataattttc	ttgtatagca	3840
gtgcagcttt	ttcctttgtg	gtgtaaatag	caaagcaagc	aagagtctta	ttactaaaca	3900
cagcatgact	caaaaaactt	agcaattctg	aaggaaagtc	cttgggggtct	tctacctttc	3960
tcttcttttt	tggaggagta	gaatgttgag	agtcagcagt	agcctcatca	tcactagatg	4020
gcatttcttc	tgagcaaaaac	aggttttcct	cattaaaggc	attccaccac	tgctccatt	4080
catcagttcc	ataggttggga	atctaaaaata	cacaaacaat	tagaatcagt	agtttaacac	4140
attatacact	taaaaatttt	atatttacct	tagagcttta	aatctctgta	ggtagtttgt	4200
ccaattatgt	cacaccacag	aagtaagggt	ccttcacaaa	gatccgggac	caaagcggcc	4260
atcgtgcctc	cccactcctg	cagttcgggg	gcattggatgc	gcggatagcc	gctgctggtt	4320
tcctggatgc	cgacggattt	gcactgccgg	tagaactccg	cgaggtcgtc	cagcctcagg	4380
cagcagctga	accaactcgc	gaggggatcg	agcccggggt	gggcgaagaa	ctccagcatg	4440
agatccccgc	gctggaggat	catccagccg	gcgtcccgga	aaacgattcc	gaagcccaac	4500
ctttcataga	aggcggcggt	ggaatcgaaa	tctcgtgatg	gcaggttggg	cgtcgcttgg	4560
tcggtcattt	cgaaccccag	agtcgcgtc	agaagaactc	gtcaagaagg	cgatagaagg	4620
cgatgcgctg	cgaatcggga	gcggcgatac	cgtaaagcac	gagggaagcgg	tcagcccatt	4680
cgcgcgcaag	ctcttcagca	atatacggg	tagccaacgc	tatgtcctga	tagcgggtccg	4740
ccacaccacg	cgggccacag	tcgatgaatc	cagaaaagcg	gccattttcc	accatgatat	4800
tcggcaagca	ggcatcgcca	tgggtcacga	cgagatcctc	gccgtcgggc	atgcgcgcct	4860
tgagcctggc	gaacagttcg	gctggcgcgga	gcccctgatg	ctcttcgtcc	agatcatcct	4920
gatcgacaag	accggcttcc	atccgagtac	gtgctcgctc	gatgcgatgt	ttcgcttggg	4980

```

ggtcgaatgg gcaggtagcc ggatcaagcg tatgcagccg ccgcattgca tcagccatga 5040
tggataacttt ctcggcagga gcaagggtgag atgacaggag atcctgcccc ggcaacttcgc 5100
ccaatagcag ccagtcacct cccgcttcag tgacaacgtc gagcacagct gcgcaaggaa 5160
cgcccgtcgt ggccagccac gatagccgcg ctgcctcgtc ctgcagttca ttcagggcac 5220
cggacaggtc ggtcttgaca aaaagaaccg ggcgccctg cgctgacagc cggaacacgg 5280
cggcatcaga gcagccgatt gtctgtttgtg cccagtcata gccgaatagc ctctccaccc 5340
aagcggccgg agaacctgcg tgcaatccat cttgttcaat catgcgaaac gatcctcatc 5400
ctgtctcttg atcagatctt gatccccctgc gccatcagat ccttggcggc aagaaagcca 5460
tccagtttac tttgcagggc ttcccaacct taccagaggg cggcccagct ggcaattccg 5520
gttcgccttg tgtccataaa accgcccagt ctagctatcg ccatgtaagc ccactgcaag 5580
ctacctgctt tctcttttgcg cttgcgtttt cccttgcca gatagcccag tagctgacat 5640
tcatccgggg tcagcaccgt ttctgcgga cttggtttcta cgtgttcgcg ttccttttagc 5700
agcccttgcg ccctgagtgc ttgcggcagc gtgaag 5736

```

<210> 3

<211> 3584

<212> DNA

<213> Artificial Sequence

<220>

<223> Plasmid pCRXA 20

<400> 3

```

gatatcatat tggctcatgt ccaacattac cgccatgttg acattgatta ttgactagtt 60
attaatagta atcaattacg gggtcattag ttcatagccc atatatggag ttccgcgtta 120
cataacttac ggtaaatggc ccgcctggct gaccgccccaa cgacccccgc ccattgacgt 180
caataatgac gtatgtttccc atagtagcgc caatagggac tttccattga cgtcaatggg 240
tggagtattt acggtaaaact gccacttgg cagtacatca agtgtatcat atgccaaagtc 300
cgccccctat tgacgtcaat gacggtaaat ggcccgctg gcattatgcc cagtacatga 360
ccttacggga ctttctact tggcagta tctacgtatt agtcatcgct attaccatgg 420
tggatgcggt tttggcagta caccaatggg cgtggatagc ggtttgactc acggggattt 480
ccaagtctcc accccattga cgtcaatggg agtttgtttg ggcacaaaaa tcaacgggac 540
tttccaaaat gtcgtaataa cccgcgcccg ttgacgcaaa tgggcggtag gcgtgtacgg 600
tgggaggtct atataagcag agctcgttta gtgaaccgtc agatcgctg gagacgcat 660
ccacgtgtt ttgacctcca tagaagacac cgggaccgat ccagcctcg cggccgggaa 720
cgggtgcattg gaacgcggat tccccgtgcc aagagtgcag taagtaccgc ctatagactc 780
tataggcaca cccctttggc tcttatgcat gctatactgt ttttggttg gggcctatac 840
acccccgctt ccttatgcta taggtgatgg tatagcttag cctataggtg tgggttattg 900
accattattg accactcccc tattggtgac gatactttcc attactaatc cataacatgg 960
ctcttttgcca caactatctc tattggctat atgccaatac actgtccttt cgctcggcag 1020
ctccttgctc ctaacagtggt aggcagact taggcacagc acaatgccc aaccaccag 1080
tgtgccacac aaggccgwggt cggtagggta tgtgtctgaa aatgagctcg gagattgggc 1140
tcgcaccgct gacgcagatg gaagacttaa ggcagcggca gaagaagatg caggcagctg 1200
agttgttgta ttctgataag agtcagagggt aactcccggt gcggtgctgt taacggtgga 1260
gggcagtgtg gtctgagcag tactcgttgc tgccgcgcgc gccaccagac ataatagctg 1320
acagactaac agactgttcc tttccatggg tttttctgc agtcaccgggt cgaccgaagc 1380
ttcgcccggt cgggatcccg gcggccgccc gaattctgat cataatcagc cataccacat 1440
ttgtagaggt tttacttget ttaaaaaacc tcccacacct cccctgaac ctgaaacata 1500
aaatgaatgc aattgttgtt gttaacttgt ttattgcagc ttataatggt taaaaataaa 1560
gcaatagcat cacaaatttc acaataaaag catTTTTTtT actgcattct agttgtggtt 1620
tgtccaaact catcaatgta tcttaggtac cacgtcagggt ggcacttttc ggggaaatgt 1680
gcgcggaacc cctatttgtt tatttttcta aatacattca aatatgtatc cgctcatgag 1740
acaataaccc tgataaatgc ttcaataata ttgaaaagg aagagtatga ttgaacaaga 1800
tggattgcac gcaggttctc cggccgcttg ggtggagagg ctattcggtc atgactgggc 1860
acaacagaca atcggctgct ctgatgccgc cgtgttcggg ctgtcagcgc aggggcgccc 1920

```

ggttcttttt	gtcaagaccg	acctgtccgg	tgccctgaat	gaactgcagg	acgaggcagc	1980
gcggtctatcg	tggctggcca	cgacgggcgt	tccttgcgca	gctgtgctcg	acgttgtcac	2040
tgaagcggga	agggactggc	tgctattggg	cgaaagtgcg	gggcaggatc	tcctgtcatc	2100
tcaccttgct	cctgccgaga	aagtatccat	catggctgat	gcaatgcggc	ggctgcatac	2160
gcttgatccg	gctacctgcc	cattcgacca	ccaagcgaaa	catcgcatcg	agcgagcacg	2220
tactcggatg	gaagccggtc	ttgtcgatca	ggatgatctg	gacgaagagc	atcaggggct	2280
cgcgccagcc	gaactgttcg	ccaggetcaa	ggcgcgcgat	cccgacggcg	aggatctcgt	2340
cgtgaccat	ggcgatgcct	gcttgccgaa	tatcatggtg	gaaaatggcc	gcttttctgg	2400
attcatcgac	tgtggccggc	tgggtgtggc	ggaccgctat	caggacatag	cgttggctac	2460
ccgtgatatt	gctgaagagc	ttggcggcga	atgggctgac	cgcttcctcg	tgctttacgg	2520
tatcgccgct	cccgattcgc	agcgcacgcg	cttctatcgc	cttcttgacg	agttcttctg	2580
actcgaggcc	agctgcatta	atgaattggc	ccacgcgcgg	ggagaggcgg	attgcgattt	2640
gggcgctctt	ccgcttcctc	gctcactgta	ctcgctgcgc	tcggtcgttc	ggctgcggcg	2700
agcggtatca	gctcactcaa	aggcggtaat	acggttatcc	acagaatcag	gggataaacg	2760
aggaaagaac	atgtgagcaa	aaggccagca	aaaggccagg	aaccgtaaaa	aggccgcggt	2820
gctggcggtt	ttccataggc	tccgcccccc	tgacgagcat	cacaaaaatc	gacgctcaag	2880
tcagaggtgg	cgaaacccga	caggactata	aagataccag	gcgtttcccc	ctggaagctc	2940
cctcgtgcgc	tctcctgttc	cgacctgcc	gcttaccgga	tacctgtccg	cctttctccc	3000
ttcgggaagc	gtggcgcttt	ctcatagctc	acgctgtagg	tatctcagtt	cgggtgtaggt	3060
cgttcgctcc	aagctgggct	gtgtgcacga	acccccggt	cagcccgacc	gctgcgcctt	3120
atccggtaac	tatcgtcttg	agtccaaccc	ggtaagacac	gacttatcgc	cactggcagc	3180
agccactggt	aacaggatta	gcagagcgag	gtatgtaggc	ggtgctacag	agttcttgaa	3240
gtggtggcct	aactacggct	acactagaag	aacagtattt	ggtatctcgc	ctctgctgaa	3300
gccagttacc	ttcggaaaaa	gagttggtag	ctcttgatcc	ggcaaacaaa	ccaccgctgg	3360
tagcggtggt	ttttttgttt	gcaagcagca	gattacgcgc	agaaaaaaag	gatctcaaga	3420
agatcctttg	atcttttcta	cggggtctga	cgctcagtg	aacgaaaact	cacgttaagg	3480
gattttggtc	atgagattat	caaaaaggat	cttcacctag	atccttttaa	attaaaaatg	3540
aagttttaa	tcaatctaaa	gtatatatga	gtaaacttgg	tctg		3584

<210> 4

<211> 2361

<212> DNA

<213> Cytomegalovirus

<400> 4

ctgcagtga	taataaaatg	tgtgtttgtc	cgaaatacgc	gttttgagat	ttctgtcgcc	60
gactaaattc	atgtcgcgcg	atagtgggtg	ttatcgccga	tagagatggc	gatattggaa	120
aaatcgatat	ttgaaaatat	ggcatattga	aaatgtcgcc	gatgtgagtt	tctgtgtaac	180
tgatatcgcc	atttttccaa	aagtgatttt	tgggcatacg	cgatatctgg	cgatacggct	240
tatatcgttt	acgggggatg	gcgatagacg	actttggcga	cttgggcgat	tctgtgtgtc	300
gcaaatatcg	cagtttcgat	ataggtgaca	gacgatatga	ggctatatcg	ccgatagagg	360
cgacatcaag	ctggcacatg	gccaatgcat	atcgatctat	acattgaatc	aatattggca	420
attagccata	ttagtcattg	gttatatagc	ataaatcaat	attggctatt	ggccattgca	480
tacgttgtat	ctatatcata	atatgtacat	ttatatgggc	tcatgtccaa	tatgaccgcc	540
atgttgacat	tgattattga	ctagttatta	atagtaatca	attacggggt	cattagttca	600
tagcccatat	atggagttcc	gcgttacata	acttacggta	aatggcccg	ctcgtgaccg	660
cccaacgacc	ccgcgccatt	gacgtcaata	atgacgtatg	ttcccatagt	aacgccaata	720
gggactttcc	attgacgtca	atgggtggag	tatttacggg	aaactgcccc	cttggcagta	780
catcaagtgt	atcatatgcc	aagtcgggcc	ccctattgac	gtcaatgacg	gtaaatggcc	840
cgctggcat	tatgccaggt	acatgacctt	acgggaacttt	cctacttggc	agtacatcta	900
cgtattagtc	atcgctatta	ccatggtgat	gcggttttgg	cagtacacca	atgggcgtgg	960
atagecgttt	gactcacggg	gattttccaag	tctccacccc	attgacgtca	atgggagttt	1020
gttttggcac	caaaatcaac	gggactttcc	aaaaatgctg	aataaccccc	ccccgttgac	1080
gcaaattggc	ggtaggcgtg	tacgggtggga	ggtctatata	agcagagctc	gttttagtgaa	1140
ccgtcagatc	gcctggagac	gccatccacg	ctgttttgac	ctccatagaa	gacaccggga	1200
ccgatccagc	ctccgcggcc	gggaacgggtg	cattggaacg	cggattcccc	gtgccaaagag	1260

tgacgtaagt accgcctata gactctatag gcacacccct ttggctctta tgcattgat 1320
actgtttttg gcttggggcc tatacacccc cgctccttat gctatagggtg atggatatagc 1380
ttagcctata ggtgtgggtt attgaccatt attgaccact cccctattgg tgacgatact 1440
ttccattact aatccataac atggctcttt gccacaacta tctctattgg ctatatgcca 1500
atactctgtc cttcagagac tgacacggac tctgtatattt tacaggatgg ggtcccatTT 1560
attatttaca aattcacata tacaacaacg ccgtcccccg tgcccgcagt ttttattaaa 1620
catagcgtgg gatctccacg cgaatctcgg gtacgtgttc cggacatggg ctcttctccg 1680
gtagcggcgg agcttccaca tccgagccct ggtcccatgc ctccagcggc tcatggtcgc 1740
tcggcagctc cttgtctcta acagtggagg ccagacttag gcacagcaca atgccacca 1800
ccaccagtgt gccgcacaag gccgtggcgg taggggatgt gtctgaaaat gagctcggag 1860
attgggctcg caccgtgacg cagatggaag acttaaggca gcggcagaag aagatgcagg 1920
cagctgagtt gttgtattct gataagagtc agaggtaact cccgttgccg tgctgttaac 1980
ggtggagggc agtgtagtct gagcagtagt cgttgctgcc gcgcgcgcca ccagacataa 2040
tagctgacag actaacagac tgttcccttc catgggtctt ttctgcagtc accgtccttg 2100
acacgatgga gtctctgcc aagagaaaga tggaccctga taatcctgac gagggccctt 2160
cctccaaggt gccacggtac gtgtc